T80-(RGB) i24

IR LED Controller

User Manual

Please read carefully before using this controller.

- **Instructions**

　　Thanks for using T80-(RGB) i24 controller of our company. Before installation, please read this manual carefully to ensure fully understand and proper use in order to avoid unnecessary damages to the controller.

　　Before using, please check to confirm whether there is any damage caused during the transport process, if there is, please notify your supplier and do not use the product.

- **After-sale services**

　　Warranty of this product is one year, in this period we guarantee repairing or replacement service with no charge if it is normally used according to the instruction.

　　If the customer does not follow the instructions and following provisions in this manual, which results in product damage, the supplier is not responsible for any problems arising and defects, even in the warranty period, maintenance costs borne by the customer.

1. Damage caused by misuse, such as not in accordance with the instructions.

2. Damages caused by unauthorized removal, repair, modify of the circuit; incorrect connection and replacement of the chips.

3. Damage caused by transportation, shock, falling after purchase.

4. Damage caused by earthquake, fire, flood, lighting and abnormal voltage.

5. Damage caused by negligence or improper maintenance, such as storage at high temperature and humid environment, vicinity of hazardous chemical substances.

6. Replacement of products.

- **Instructions for safety**

　　Making sure you use the product perfectly and safely, please observe the instructions and warning on this manual. Operate cautiously and read these instructions carefully.

1. For installation, try to avoid the minefields, strong magnetic field and high-pressure area.

2. Ensure that the wire is connected correctly and firmly in order to avoid short-circuit damage to parts and posing a fire hazard.

3. Please install controller in a well-ventilated place to ensure that the ambient temperature is moderate.

4. Before using this product, please check the DC power and voltage meet the product technical requirements; positive and negative polarity is defined consistent to the product.

5. Prohibit live wiring, check to confirm wiring is correct, if no short-circuit, then power!

6. If any problems do not make unauthorized repairs. Any doubts please contact your local supplier.

This manual applies only to this product of our company, subject to changes without notice.

● **Introduction**

   T80-(RGB) i24 series controller is a smart RGB three colors light controller dedicated to long-illumination LED light, using the most advanced (Pulse Width Modulation) digital control technology, the controller can be operated through RF wireless remote controller. It is available to commercial use and it can be installed visibly or invisibly. The installation of LED controller can apply to commercial or home lighting on different occasion with different environment, extend the LED life span, and save energy; LED and RGB lights can use this controller to decolorize.
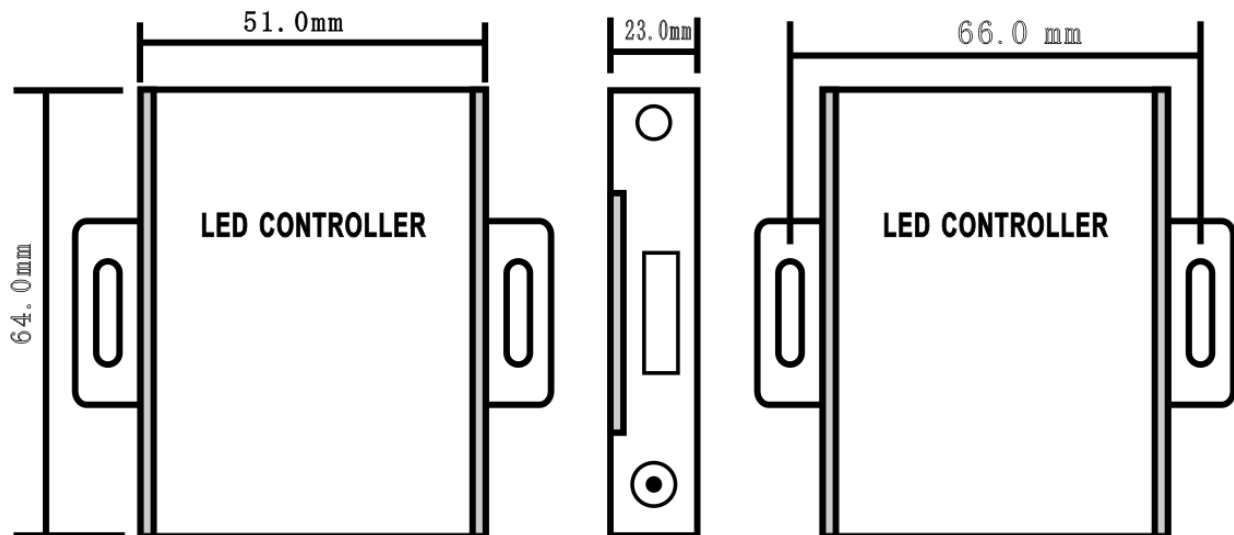
1. Technology specifications

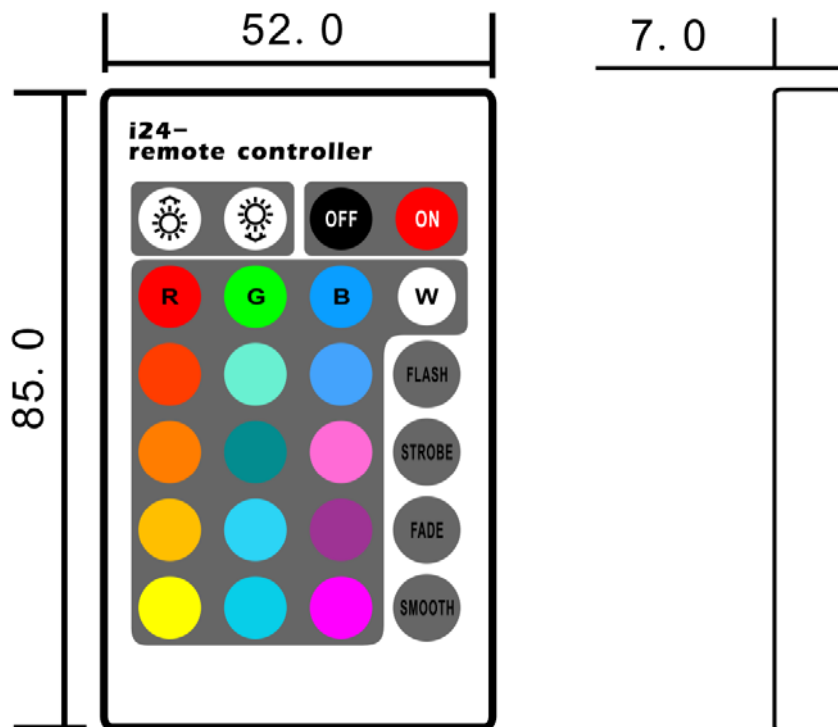| Type	T80-(RGB)i24
Input power	DC12V~24V
Output signal	3-way 3-channel RGB signal output
Max load current	12V(3*4A)
Output power	144W(12V)
Controller dimension	51*64*23(mm)
Remote dimension	52*85*7.0(mm)
Packaging dimension	85*42*95 (mm)
Gross weight	120g

2. Functions

(1).RGB full colors LED strip controller.

(2).Control way: IR remote control, it is available in 10-meter (No barriers).

(3).Display: 16 static, 3 colors jump change, 7 colors jump change, 3 colors gradual change, 7 colors gradual change.

(4).Speed of dynamic and brightness of static can be adjusted.

(5).Having memory when power fails

(6).Of functions of both controller and dimmer.

(7).Standby function.

(8). Colorized controlling panel

(9).Silver shell.

(10).3 channels RGB signal (common anode/cathode)
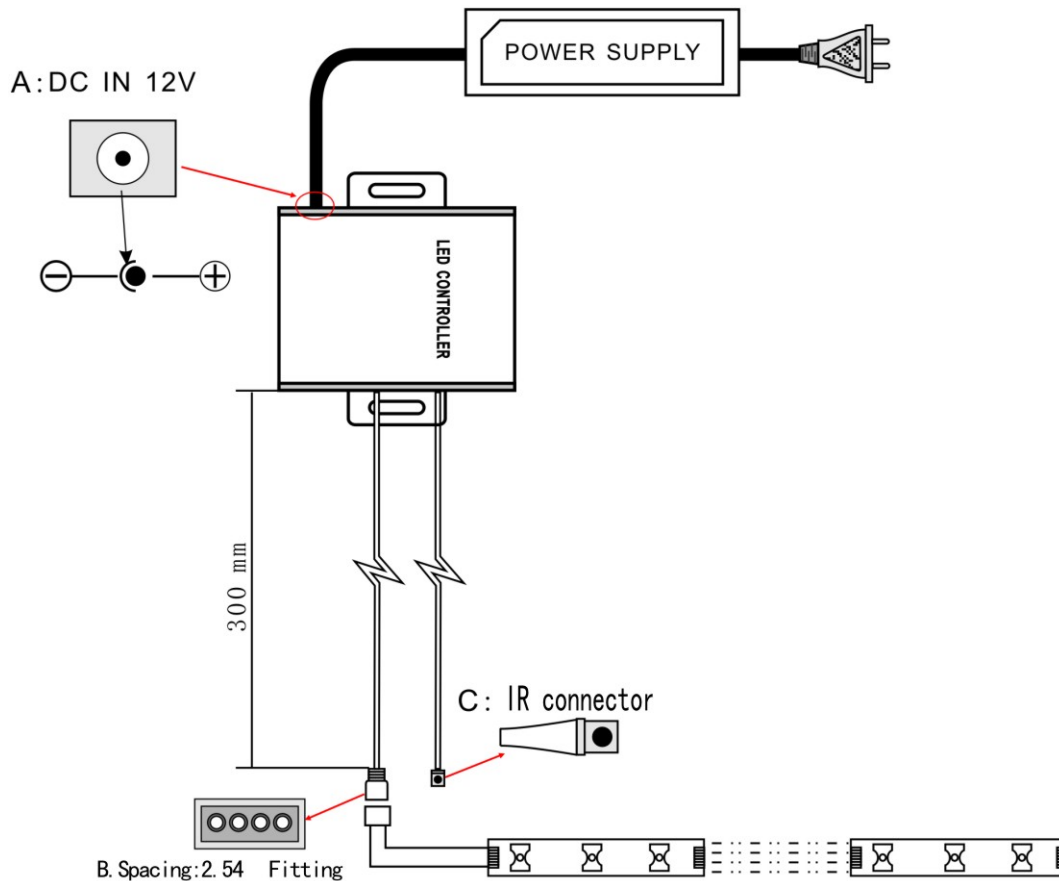
3. Structure

(1).View of major controller: (chart 1)

(2).View of remote controller:(chart 2）

4. Connection diagram of controller

(1).Connection diagram to low power LED: （chart 3）

(2). Descriptions for remote controller keys. (Table 1)

Key		Name		Function			
OFF ON		OFF/ON		On/off: turn on or off the LED controller.			
☀ ☀		BRT+/BRT-		☀ ☀ Increase/decrease brightness, totally 256 levels, press and hold can change continuously.			
R	Static red	G	Static green		Static blue	W	Static white
	Static orange		Static light green		Static dark blue	FLASH	7-color jump change
	Static dark yellow		Static cyan		Static pink	STROBE	White gradual change
	Static yellow		Static light blue		Static purple	FADE	7-color gradual change
	Static light yellow		Static sky-blue		Static magenta	SMOOTH	RGB jump change

5. Failure analysis and solutions (Table 2)

Failure	Analysis	Solutions
No light	1. No power. 2. Reversed the polarity. 3. Wrong connection or poor contact. 4. LED light has been bad.	1.Check the power 2. Make sure the polarity is right. 3. Re-check the wire connection.
Brightness of LED is not consistent	1. Input wire is too long to cause wire loss. 2. Diameter of wire is too thin to cause wire loss. 3. Power overload. 4. Controller overload.	1. Shorten wire or use loop circuit. 2. Calculate the current, and then replace thick wire. 3. Replace larger power. 4.Add a power amplifier

Tips: The effective power is generally only 80% of the marked power, so it is recommended in selecting the power supply, the user choose a slightly larger one than the LED load power, at least for more than 20%!

Appendix: dynamic modes description（Table 3）.

Mode	Description
FLASH	3 colors jump change: Red→ green→ blue
STROBE	7 colors jump change: Red→ green→ blue→ yellow→ cyan→ purple → white.
FADE	3 colors gradual change: Red→ green→ blue
SMOOTH	7 colors gradual change: Red→ green→ blue→ yellow→ cyan→ purple → white.

6. Packaging

(1).Packaging details (chart 4)

(2).Packaging list (Table 4).

Symbol	Name	Picture	External dimension(mm)	QTY	Unit
A	T80-(RGB)i24 controller		51*64*23	1	PCS
B	I24 remote controller		85*55*7	1	PCS
C	User manual	80ERGB-i24	A6 sheet	1	PCS

(3). Carton packaging

Box packing: 35PCS/carton